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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,809	09/30/2005	Hiroyuki Osada	3749-0106PUS1	6770
2292 7590 05/01/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER COOK, LISA V				
ART UNIT 1641		PAPER NUMBER		
NOTIFICATION DATE 05/01/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/551,809

Applicant(s)

OSADA ET AL.

Examiner

LISA V. COOK

Art Unit

1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 5-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-14 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION***Election/Restrictions***

1. Applicants' election with traverse of Group I (claims 1-4) in the reply filed 1/22/09 is acknowledged. Applicant traverses the restriction contending that the instant special technical feature is a method of fixing low molecular weight compounds without a functional group like a hydroxyl or amino group and a photoreactive compound. This argument was carefully considered but not found persuasive because the reference to MacBeth et al. disclose low molecular weight compound attachment with functional groups inherently present within the compounds. The instant claims do not require the addition of an additional functional group like a hydroxyl or amino group. Nor do the claims eliminate the use of a functional group for attachment. MacBeth et al. also disclose a photoreactive compound (fluorescence compounds) as defined by the specification on page 4, 2nd paragraph. Therefore the special technical feature is still deemed known and not a contribution over what is known in the prior art.

The Restriction Requirement is deemed proper and is therefore made **FINAL**.

2. Currently, claims 1-14 are subject to Restriction and Election Requirement. Claims 5-14 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as claims drawn to a non-elected invention. Claims 1-4 are under examination.
3. Rejections and/or objections of record not reiterated herein have been withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- I. Claim 1 is rejected under #5 U.S.C. 102(b) as being anticipated by MacBeth et al. (Journal of American Chemical Society, 1999, Vol.121, pages 7967-7968).

MacBeth et al. disclose methods of attaching small molecules on microarrays. Glass slides are derivatized and thiol containing compounds are attached to the surface. The protein bound compound is probed with a Cy5-conjugate for fluorescence measurement. See the entire document.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

II. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacBeth et al. (Journal of American Chemical Society, 1999, Vol.121, pages 7967-7968) in view of Holmes (US Patent #5,679,773).

Please see previous discussions of MacBeth et al. as set forth above.

MacBeth et al. differ from the instant invention in not specifically teaching the photoreactive compounds identified in claims 3-4.

However, Holmes disclosed methods for utilizing photoreactive linker compounds. The linker compounds were useful in immobilizing molecules and identifying binding complexes. The photoreactive compounds are incorporated on the surface of a solid support to produce a derivatized solid support having attached photolabile linking groups at synthesis initiation sites and are useful for synthesizing small ligand mols. or peptides, are prepared Various compounds were made and utilized in the method of attachment. The method is taught to be efficient and useful in monitoring protein/peptide binding activities. See entire patent.

It would have been prima facie obvious to one of ordinary skill in the art to take the photoreactive compounds taught by Holmes and incorporate them into the array system of MacBeth et al. because Holmes taught that this method is efficient and useful in monitoring protein/peptide binding activities. See entire patent.

Response to Arguments

Applicant's arguments have been carefully considered and found persuasive. Accordingly new rejections are presented herein.

6. For reasons aforementioned, no claims are allowed.

Remarks

7. Prior art made of record and not relied upon is considered pertinent to the applicant's disclosure:

Liu (Applied Biochemistry and Biotechnology - Part B Molecular Biotechnology, 2001, Vol.17, No.2, pages 183-185) teach methods on immobilizing DNA fragments onto magnetic beads.

8. Papers related to this application may be submitted to Group 1600 by facsimile transmission. The Group 1641 – Central Fax number is (571) 273-8300, which is able to receive transmissions 24 hours/day, 7 days/week. In the event Applicant would like to fax an unofficial communication, the Examiner should be contacted for the appropriate Right Fax number.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa V. Cook whose telephone number is (571) 272-0816. The examiner can normally be reached on Monday - Friday from 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Shibuya, can be reached on (571) 272-0806.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 1600 whose telephone number is (571) 272-1600.

Art Unit: 1641

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lisa V. Cook
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4/26/09

/Lisa V. Cook/
Primary Examiner, Art Unit 1641